DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: COLD SPRING POND	Lake Area (ha): 11.78
Town: STODDARD	Maximum depth (m): 4.8
County: Cheshire	Mean depth (m): 3.0
River Basin: Connecticut	Volume (m^3) : 358000
Latitude: 43°05'58" N	Relative depth: 1.2
Longitude: 72°09'05" W	Shore configuration: 1.32
Elevation (ft): 1637	Areal water load (m/yr): 3.92
Shore length (m): 1600	Flushing rate (yr ⁻¹): 1.30
Watershed area (ha): 76.8	P retention coeff.: 0.70
<pre>% watershed ponded: 0.0</pre>	Lake type: artificial

BIOLOGICAL:	14 January 2003	6 August 2002
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 50%	MALLOMONAS 60%
#2	ASTERIONELLA 20%	(ALL ALGAE VERY SPARSE)
#3	(ALL ALGAE SPARSE)	
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		1.45
DOM. ZOOPLANKTON (% TOTAL) #1	CALANOID COPEPOD 46%	CALANOID COPEPOD 43%
#2	ROTIFER SPP. 26%	KERATELLA 28%
#3		NAUPLIUS LARVA 16%
ROTIFERS/LITER	70	51
MICROCRUSTACEA/LITER	70	126
ZOOPLANKTON ABUNDANCE (#/L)	144	184
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		4.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	6.7	6.8
BACTERIA (E. coli, #/100 ml) #1		7
#2		1
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL: Lake: COLD SPRING POND Town: STODDARD				ING POND		
	14 January 2003		6 August 2002			
DEPTH (m)	1.5	3.0	1.5			3.0
pH (units)	5.8	5.9	6.3			6.2
A.N.C. (Alkalinity)	2.4	2.6	1.9			1.8
NITRATE NITROGEN	0.06	0.05	< 0.05		<	0.05
TOTAL KJELDAHL NITROGEN			< 0.25		<	0.25
TOTAL PHOSPHORUS	0.006	<0.005	0.009			0.007
CONDUCTIVITY (µmhos/cm)	71.3	81.2	76.8		7	6.7
APPARENT COLOR (cpu)	11	11	8			9
MAGNESIUM			0.55			
CALCIUM			1.3			
SODIUM			10.3			
POTASSIUM			0.62			
CHLORIDE	14	17	16			16
SULFATE	5	4	4			4
TN : TP						
CALCITE SATURATION INDEX			4.6			-

All results in mg/L unless indicated otherwise

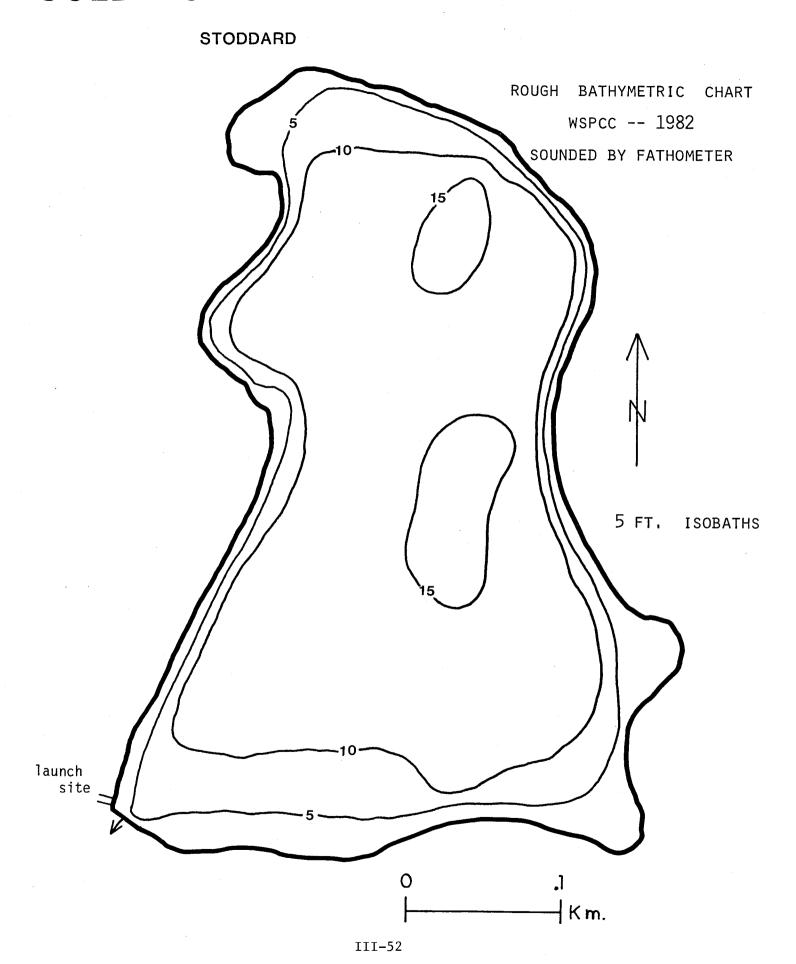
TROPHIC CLASSIFICATION: 2002

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	1	3	0	4	Oligo.

COMMENTS:

- 1. aka Abbott Forest Pond.
- 2. No motors allowed.
- 3. Previously surveyed in 1982. No change in trophic class and little change in trophic data between the two dates. Rooted plants appeared somewhat more common in 2002.
- 4. The pond was not re-sounded in 2002; enclosed bathymetric map is from the 1982 survey.
- 5. Pond's outlet has been sampled twice a year (spring and fall overturn) since 1983 as part of a long-term acid rain trend program. ANC and pH have remained relatively stable throughout this 20 year period.
- 6. This is a clear water oligotrophic pond. Moderately elevated sodium, chloride and conductivity values suggest some road salt runoff.

COLD SPRING POND



FIELD DATA SHEET

LAKE: COLD SPRING POND

DATE: 08/06/2002

TOWN: STODDARD

WEATHER: Breezy & cool

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION	
0.1	25.1	6.9	82 %	
1.0	25.2	6.8	82 %	
2.0	25.1	6.8	81 %	
3.0	25.1	6.8	82 %	
4.0	25.2	6.8	82 %	
	- MIT-111			

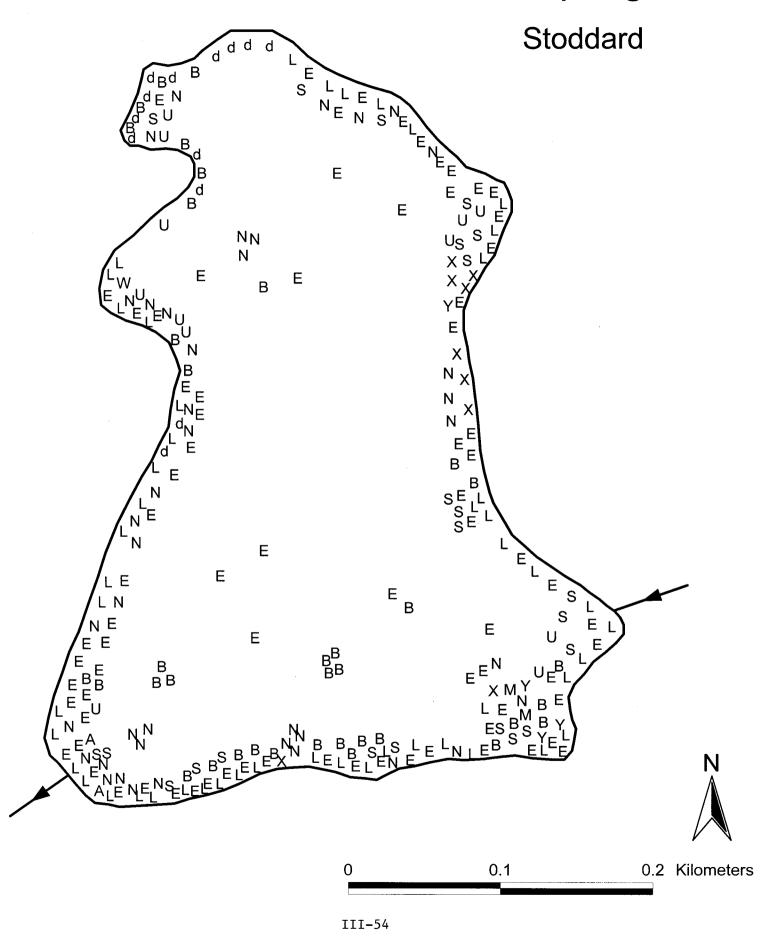
SECCHI DISK (m): 4.1 VOB COMMENTS:

BOTTOM DEPTH (m): 4.1

TIME: 1100

*Dissolved oxygen values are in mg/L

Cold Spring Pond



AQUATIC PLANT SURVEY

LAK	KE: COLD SPRING POND TOWN: STODDARD		DATE: 08/06/2002	
Key	PLANT NAME		ABUNDANCE	
vea	GENERIC	COMMON	ABUNDANCE	
L	Lobelia dortmanna	Water lobelia	Scattered	
N	Nymphaea	White water lily	Scattered	
E	Eriocaulon septangulare	Pipewort	Scattered	
S	Sparganium	Bur reed	Scattered	
U	Utricularia	Bladderwort	Scattered	
В	Brasenia schreberi	Water shield	Scattered	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
W	Potamogeton natans	Floating-leaf pondweed	Sparse	
Х		Sterile thread-like leaf	Scattered	
Y	Nuphar	Yellow water lily	Sparse	
М	Myriophyllum humile	Water milfoil	Sparse	
A	Sagittaria	Arrowhead	Sparse	
			,	
OVERALL ABUNDANCE: Common				

GENERAL OBSERVATIONS:

1. Plants were present along most of the shoreline but not in dense growths.